What is Claimed is:

1. A method for producing an optical substrate assembly comprising:

providing a substrate;

disposing a first cladding layer on the substrate;

forming a first recess in the first cladding layer;

disposing a plurality of first deflector electrode assemblies in said first recess;

disposing a core layer on the first cladding layer and over the first electrode assemblies; and

forming microlenses in the core layer to produce an optical substrate assembly.

2. The method of Claim 1 additionally comprising forming an alignment frame assembly in the core layer.

3. The method of Claim 2 wherein said forming an alignment frame assembly includes etching openings in the first cladding layer down to the substrate.

4. The method of Claim 3 wherein said openings border on said first recess.

5. The method of Claim 2 wherein said alignment frame assembly includes a plurality of spaced corner assemblies.

6. The method of Claim 3 wherein said alignment frame assembly includes a plurality of spaced corner assemblies.

7. The method of Claim 4 wherein said alignment frame assembly includes a plurality of spaced corner assemblies.

8. The method of Claim 1 additionally comprising depositing a protective layer in said first recess.

9. The method of Claim 7 additionally comprising depositing a protective layer in said first recess.

10. A method for producing an optical switching apparatus comprising:

providing a substrate;

disposing a first cladding layer on the substrate;

disposing a plurality of first deflector electrode assemblies on said first cladding layer;

disposing a core layer on the first cladding layer and over the first electrode assemblies;

forming microlenses in the core layer to produce an optical substrate assembly;

forming an alignment frame assembly in the core layer; and

engaging the alignment frame assembly with an optical switching device.

11. The method of Claim 10 additionally comprising forming the optical switching device prior to engaging the alignment frame assembly with the optical switching device.

12. The method of Claim 11 wherein said forming the optical switching device comprises:

providing an optical switching substrate;

diffusing an element into the optical switching substrate to produce a waveguide layer in the optical switching substrate; and

disposing a plurality of second deflector electrode assemblies on the optical switching substrate.

13. The method of Claim 12 wherein said optical switching substrate comprises $LiNbO_3$.

14. The method of Claim 12 wherein said element comprises a transitional metal.

15. The method of Claim 14 wherein said transitional metal is titanium.

16. The method of Claim 12 additionally comprising disposing a second cladding layer on the waveguide layer.

17. The method of Claim 12 additionally comprising forming an alignment frame assembly in the core layer with a plurality of spaced corner assemblies.

18. The method of Claim 12 wherein said forming an alignment frame assembly includes etching openings in the first cladding layer down to the substrate.

19. The method of Claim 18 wherein said openings border on said first recess.

20. The method of Claim 18 wherein said alignment frame assembly includes a plurality of spaced corner assemblies.

21. The method of Claim 18 wherein said alignment frame assembly includes a plurality of spaced corner assemblies.

22. The method of Claim 19 wherein said alignment frame assembly includes a plurality of spaced corner assemblies.

23. The method of Claim 12 additionally comprising depositing a protective layer in said first recess.

24. The method of Claim 22 additionally comprising depositing a protective layer in said first recess.

25. The method of Claim 10 additionally comprising forming a plurality of optical outputs in said core layer such that optical signals are transferred directly from said microlenses to said optical outputs without blocking.

26. A method for producing an optical switching device comprising:

providing an optical switching substrate;

diffusing an element into the optical switching substrate to produce a waveguide layer in the optical switching substrate; and

disposing deflector electrodes on the optical switching substrate.

27. The method of Claim 26 wherein said optical switching substrate comprises $LiNbO_3$.

28. The method of Claim 26 wherein said element comprises a transitional metal.

29. The method of Claim 28 wherein said transitional metal is titanium.

30. The method of Claim 26 wherein said optical switching substrate is optically unblocking.

31. The method of Claim 26 additionally comprising disposing a cladding layer on the waveguide layer.

32. A method for producing an optical switching apparatus comprising:

providing a substrate;

disposing a first cladding layer on the substrate;

disposing a core layer on the first cladding layer;

forming microlenses in the core layer;

forming an alignment frame assembly in the core layer; and

engaging the alignment frame assembly with an optical switching device.

33. The method of Claim 32 additionally comprising forming the optical switching device prior to engaging the alignment frame assembly with the optical switching device.

34. The method of Claim 33 wherein said forming the optical switching device comprises:

providing an optical switching substrate;

diffusing an element into the optical switching substrate to produce a waveguide layer in the optical switching substrate;

disposing a plurality of first deflector electrode assemblies on the optical switching substrate;

disposing a second cladding layer on the waveguide layer in the optical switching substrate; and

disposing a plurality of second deflector electrode assemblies on the waveguide layer.

35. An optical substrate assembly comprising a substrate; a first cladding layer disposed on the substrate; a plurality of deflector electrode assemblies supported by said first cladding layer; microlenses formed in the core layer; and an alignment frame assembly formed in the core layer.

36. The optical substrate assembly of Claim 35 wherein said alignment frame assembly comprises a plurality of spaced corner assemblies.

37. The optical substrate assembly of Claim 35 additionally comprising a protective layer supported by said first cladding layer.

38. The optical substrate assembly of Claim 37 wherein said first cladding layer has a recess, and said deflector electrode assemblies and said protective layer are supported by a bottom of said recess.

39. An optical switching apparatus comprising a substrate; a first cladding layer disposed on the substrate; a plurality of first deflector electrode assemblies disposed on said first cladding layer; a core layer disposed on the first cladding layer and over the first electrode assemblies; microlenses formed in the core layer; an alignment frame assembly formed in the core layer; and an optical switching device engaged to the alignment frame assembly.

40. The optical switching apparatus of Claim 39 wherein said optical switching device comprises an optical switching substrate including a waveguide layer produced by diffusing an element into the optical switching device; and a plurality of second deflector electrode assemblies.

41. The optical switching apparatus of Claim 40 wherein said optically switching substrate is optically unblocking.

42. The optical switching apparatus of Claim 41 wherein said optical switching substrate comprises $LiNbO_3$.

43. The optical switching apparatus of Claim 42 wherein said element comprises a transitional metal.

44. The optical switching apparatus of Claim 43 wherein said transitional metal is titanium.

45. A method for transmitting a plurality of unblocked optical signals comprising the steps of:

a) forming an optical substrate assembly having an alignment frame assembly and a first core layer defining a plurality of microlenses and a second core layer spaced from and aligned with the first core layer and including a plurality of optical outputs;

b) forming an optical switching device possessing unblocking optical capabilities and having an optical waveguide layer;

c) engaging the alignment frame assembly with the optical switching device such that the optical waveguide layer is aligned with the first core layer and the second core layer; and

d) transmitting unblocked optical signals from the plurality of microlenses, through the optical switching device, and to the plurality of optical outputs.

46. The method of Claim 45 wherein the number of said microlenses equals the number of said optical outputs, and said optical signals criss-cross in said optical switching device.